

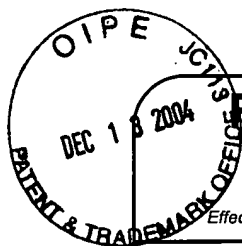
PTO/SB/21 (04-04)

1634

<b>TRANSMITTAL FORM</b> <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/721,506	
	Filing Date	November 22, 2000	
	First Named Inventor	Cech, Thomas	
	Art Unit	1634	
	Examiner Name	Sisson, Bradley L.	
Total Number of Pages in This Submission	9	Attorney Docket Number	015389-002616US

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Communication Return Postcard
<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>		
Firm or Individual name	Townsend and Townsend and Crew LLP Scott L. Aussenhus Reg. No. 42,271	
Signature		
Date	December 10, 2004	

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Tara N. Damhoff		
Signature		Date	December 10, 2004

**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 180**Complete if Known**

Application Number	09/721,506
Filing Date	November 22, 2000
First Named Inventor	Cech, Thomas
Examiner Name	Sisson, Bradley L.
Art Unit	1634
Attorney Docket No.	015389-002616US

**METHOD OF PAYMENT (check all that apply)**☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit  
Account  
Number

20-1430

Deposit  
Account  
Name

Townsend and Townsend and Crew LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

**SUBTOTAL (1)**

(\$0)

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

		Extra Claims		Fee from below		Fee Paid
Total Claims	**	=		X		
Independent Claims		=		X		
Multiple Dependent		X				

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)**

(\$0)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Petitions related to provisional applications	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

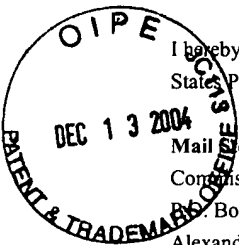
\*Reduced by Basic Filing Fee Paid **SUBTOTAL (3)**

(\$180)

**SUBMITTED BY**

Name (Print/Type)	Scott L. Asenhus	Registration No. (Attorney/Agent)	42,271	Telephone	303-571-4000
Signature				Date	December 10, 2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.



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Alexandria, VA 22313-1450

PATENT

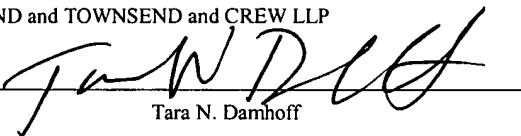
Attorney Docket No.: 015389-002616US

Client Reference No.: 018/210C

On December 10, 2004

TOWNSEND and TOWNSEND and CREW LLP

By: \_\_\_\_\_

  
Tara N. Damhoff

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Thomas R. Cech et al.

Application No.: 09/721,506

Filed: November 22, 2000

For: NUCLEIC ACIDS ENCODING  
HUMAN TELOMERASE  
REVERSE TRANSCRIPTASE  
AND RELATED HOMOLOGS  
HAVING TELOMERASE  
ACTIVITY

Customer No.: 20350

Confirmation No.: 5211

Examiner: Bradley L. Sisson

Art Unit: 1634

COMMUNICATION

12/14/2004 EABUBAK1 00000027 201430 09721506  
01 FC:1806 180.00 DA

**Mail Stop Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Applicants enclose herewith a Supplemental Information Disclosure Statement.

The enclosed IDS lists the same documents as cited in the IDS that was mailed on August 19, 2004. Copies of the cited references are not enclosed since these were submitted with the August 19, 2004 filing.

Applicants request that the Examiner disregard the IDS submitted August 19, 2004, as the certification made in that statement was made in error. Applicants instead ask that the Examiner consider the enclosed replacement IDS and provide Applicants a marked off copy

of this IDS in the next communication from the Patent Office. The enclosed IDS authorizes the Patent Office to charge the \$180 IDS fee to Deposit Account No. 20-1430.

If the Examiner believes the enclosed IDS cannot be considered, please telephone the undersigned at (303) 571-4000.

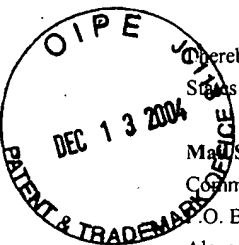
Respectfully submitted,



Scott L. Ausenhus  
Reg. No. 42,271

Date: 12/10/04

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 303-571-4000  
Fax: 303-571-4321  
SLA/jln  
60325357 v1



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Alexandria, VA 22313-1450

PATENT  
Attorney Docket No.: 015389-002616US  
Client Reference No.: 018/210C

On December 10, 2004

TOWNSEND and TOWNSEND and CREW LLP

By: Tara N. Damhoff

Tara N. Damhoff

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Thomas R. Cech et al.

Application No.: 09/721,506

Filed: November 22, 2000

For: NUCLEIC ACIDS ENCODING  
HUMAN TELOMERASE  
REVERSE TRANSCRIPTASE  
AND RELATED HOMOLOGS  
HAVING TELOMERASE  
ACTIVITY

Customer No.: 20350

Confirmation No.: 5211

Examiner: Bradley L. Sisson

Art Unit: 1634

SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER 37  
CFR §1.97 and §1.98

**Mail Stop Amendment**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are not enclosed as they were previously submitted with the Information Disclosure Statement dated August 19, 2004.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

The Commissioner is hereby authorized to deduct the \$180 fee for submission of an Information Disclosure Statement after issuance of an Office Action from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Scott L. Ausenhus  
Reg. No. 42,271

Date: 12/10/04

TOWNSEND and TOWNSEND and CREW LLP  
Two Embarcadero Center, Eighth Floor  
San Francisco, California 94111-3834  
Tel: 303-571-4000  
Fax: 303-571-4321  
SLA/jln



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)			<b>Complete if Known</b>		
			Application Number <sup>1</sup>	09/721,506	
			Filing Date	November 22, 2000	
			First Named Inventor	Cech, Thomas R.	
			Art Unit	1634	
			Examiner Name	Bradley L. Sisson	
Sheet	1	of	2	Attorney Docket Number	015389-002616US

U.S. PATENT DOCUMENTS <sup>+</sup>					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
								<input type="checkbox"/>
								<input type="checkbox"/>

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	09/721,506		
		Filing Date	November 22, 2000		
		First Named Inventor	Cech, Thomas R.		
		Art Unit	1634		
		Examiner Name	Bradley L. Sisson		
Sheet	2	of	2	Attorney Docket Number	015389-002616US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	ANDERSON, W. FRENCH "Human Gene Therapy" <i>Nature</i> , April 30, 1998, pp. 25-30, Vol. 392, Supp.	
	C2	CAMPBELL, KEITH & WILMUT, IAN "Totipotency or Multipotentiality of Cultured Cells: Applications and Progress" <i>Theriogenology</i> , January 1997, pp. 63-72, Vol. 47, Issue 1, Elsevier Science Inc.	
	C3	GEARHART, JOHN "New Potential for Human Embryonic Stem Cells" <i>Science</i> , November 6, 1998; pp. 1061-1062, Vol. 282, Issue 5391.	
	C4	HORNSBY, PJ et al. "Adrenocortical Cells Immortalized by Telomerase: Potential Use for <i>Ex Vivo</i> Gene Therapy" <i>Journal of Anti-Aging Medicine</i> , 2000, pp. 411-417, Vol. 3, No. 4.	
	C5	OSTLER ELIZABETH L. et al. "Telomerase and the Cellular Lifespan: Implications for the Aging Process" <i>J. of Pediatric Endocrinology &amp; Metabolism</i> , 2000, pp. 1467-1476, Vol. 13, Supplement 6, Freund Publishing House Ltd. London.	
	C6	THOMSON, JAMES A. et al. "Embryonic Stem Cell Lines Derived from Human Blastocysts" <i>Science</i> , November 6, 1998; pp. 1145-1147, Vol. 282, Issue 5391.	

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Examiner Signature		Date Considered	
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<sup>1</sup> EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.